



49
Corporation
Street,
Coventry

Mitigation Memo

June 2019

Ref 18- 4801



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Checked by	n/a
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Re: Planning Response for Air Quality Mitigation Re: 49 Corporation Street, Coventry

1. Background

Syntegra Consulting has reviewed the request by the Environmental Health Team for Coventry dated May 22, 2019 regarding Planning Ref: FUL/2019/0956 - 49 Corporation Street. The request is as follows:

"The air quality report by Syntegra consulting concludes that air quality standards will be exceeded on the ground floor at the façade with Corporation Street. Several options are provided in Appendix A to mitigate the exposure of future residents but I require full details of the option(s) selected by the applicant."

The Air Quality Assessment predicted concentrations of annual mean NO₂ would be exceeding the Air Quality Strategy Objective of 40µg/m³ on the ground floor of the proposals. Appendix A of the Air Quality Assessment report dated May 2018 suggested the following mitigation measures:

"Operational Phase Mitigation Measures

The following mitigation measures are suggested to protect future users from poor air quality:

- *Adhere to European standard EN 13779 to ensure that air filters are fitted and regularly maintained;*
- *Design buildings which are airtight with air intakes located away from the sources of pollution;*
- *Ensure the design minimizes exposure to sources of pollution (ie. Balconies and other recreational outdoor areas should be located away from the main pollution source);*
- *Incorporate green infrastructure to reduce exposure by creating a screen; and*
- *Maximise the contribution the building's design, layout and orientation make to avoiding the increased exposure to poor air quality.*

If the building design may not be altered, it is proposed points one and two from the above list are applied to the proposals."

2. Mitigation Measures

To protect users from poor air quality, the following mitigation measures have been selected for the site as per the recommendations listed above:

1. **Filtration** - An NO₂ filtration system will be fitted. The manufacturer (AAC Eurovent) has provided the units specifications as detailed below:

- Chemisorbant Filter Cells: HIPS Black Filters and Polycarbonate-(Transparent) Colourcell.
- Aluminium Filter slide Channels with Brushpile seals.
- Underside Access door with Sponge rubber seals to door and inside of unit to prevent air by-pass.
- Unit Width 375mm, Unit Height 145mm, Unit Length (exc transformations) 425mm
- Transformations at each end add to the length of 150mm long.
- Unit weight 23kg.
- After filter included currently G3 Single Skin AAC TP25
- Pressure drop at 0.021m³/s= 20Pa.
- Design inlet concentration 75 µg/m³ to achieve a discharge condition not to exceed 30 µg/m³ (well below 40 µg/m³ limit).
- Active Media Grade: AAC Nitrosorb (C/w Unique patented Media Condition Indicator only shall be used)
- Lifespan of Media calculated to be in excess of 2 years.

The manufacturer guarantees a 75% filter efficiency and the system is used throughout AQMAs in the UK as a mitigation measure. The filtration system will be applied to the ground floor of the proposals as the other floors are not predicted to exceed the Air Quality Standard Objective.

2. **Design** - The residential units are not located on the ground floor as the ground floor space is to be used for amenities such as a study space and gym. The recreational areas are to be located inside the building and there are no balconies or outdoor recreation areas planned for the ground floor roadside area. In addition, the air intakes will be located away from the roadside.

The mitigation measures listed above should be adequate to protect future users from poor air quality at the proposed development.